



## RiboGrip RNase Inhibitor

Cat. No.	Pack Size	20 µl RXNs	Conc.
06-22-00400	400 U SAMPLE	20	40 U/µl
06-22-01000	1000 U	50	40 U/µl
06-22-02000	2000 U	100	40 U/µl

For *in vitro* use only

### Description:

**RiboGrip** RNase Inhibitor is an *in silico* designed protein-based ribonuclease inhibitor, which inactivates RNase A. **RiboGrip** inhibits the activity of ribonuclease A by noncovalently binding in a noncompetitive mode at a ratio 1:1. This novel inhibitor is active over a broad range of reaction temperatures from 37°C to 50°C and has an enhanced stability at room temperature with no activity loss for up to 1 month.

### Source:

Purified from an *E.coli* strain that carries an overproducing plasmid containing a *RiboGrip RNase Inhibitor* gene.

### Applications:

Preventing RNA degradation in the following processes:

- First strand cDNA synthesis
- RT-PCR
- RT-qPCR
- *in vitro* transcription and translation

### Concentration:

40 U/µl

### Recommendations for use:

RiboGrip RNase Inhibitor is used generally at a **final reaction concentration of 1 U/µl**. Inactivated by heating at 85°C for 5 min.

### Unit definition:

One unit is defined as the amount of protein required to inhibit the activity of 5 ng of RNase A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2',3'-cyclic monophosphate by ribonuclease A.

### Storage and Dilution buffer:

50% glycerol (v/v), 20 mM Tris-HCl pH 7.5, 100 mM KCl, 0.1 mM EDTA, 10 mM DTT and stabilizers.

### Quality control:

The protein is free of non-specific endonucleases and nicking activities, exonucleases, ribonuclease and protease activities. SDS/PAGE - 49 kD monomer, >98% pure.

### Shipping and Storage conditions:

Routine storage: -20°C

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of RiboGrip RNase Inhibitor.

### Safety warnings and precautions:

This product and its components should be handled only by persons trained in laboratory techniques. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

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